

CLAIMS:

1. A method of preparing for the unloading of contents of a container comprising the steps of:
 - attaching one end of a funnel means to an opening of the container, the funnel means having valve means located adjacent an opposite end of the funnel means;
 - rotating the funnel means and container through a predetermined angle using a frame; and
 - removing the funnel means and container from the frame ready for partial or full discharge of the contents through the funnel means and valve means.
2. A method according to claim 1 wherein the step of attaching the funnel means to the container comprises the step of clamping the periphery of the one end of the funnel means to the opening of the container.
3. A method according to claim 2 wherein the step of clamping the periphery of the one end of the funnel means to the opening of the container comprises clamping the one end to a lip around the periphery of the opening of the container.
4. A method according to claim 3 wherein prior to the attaching step the method further comprises the step of raising the container to a position such that the opening of the container contacts the one end of the funnel means.
5. A method according to claim 4 wherein the rotating step results from the attachment or engagement of a shaft to a portion of the frame and the shaft driven by a motor so as to rotate the frame and container.
6. A method according to claim 5 further comprising the step of detaching the container from the frame after the funnel means and container have rotated through the predetermined angle.
7. A method according to claim 1 wherein the predetermined angle is about 180 degrees.

8. Apparatus for preparing for the unloading of contents of a container comprising:
a frame for receiving the container;
a funnel means having an end for attachment to an opening of the container, the funnel means having valve means located adjacent an opposite end of the funnel means;
whereupon securing the funnel means and container to the frame, a portion of the frame is able to rotate the funnel means and container through a predetermined angle to place the funnel means and container in a position ready for partial or full discharge of the contents through the funnel means and valve means.
9. Apparatus according to claim 8 wherein the frame comprises a base portion and a rotatable portion that rotates within the base portion.
10. Apparatus according to claim 9 wherein the container is initially loaded into the rotatable portion of the frame in a position below the end of the funnel means, said funnel means attached to a first member of the rotatable portion.
11. Apparatus according to claim 10 further comprising means for raising the container such that the opening of the container contacts the end of the funnel means.
12. Apparatus according to claim 11 wherein the raising means is a pair of cylinders.
13. Apparatus according to claim 12 wherein each cylinder in the pair of cylinders is a pneumatic cylinder.
14. Apparatus according to claim 13 wherein each cylinder in the pair of cylinders is attached to the rotatable portion of the frame.
15. Apparatus according to claim 14 further comprising means for attaching the funnel means to the opening of the container.

16. Apparatus according to claim 15 wherein the means for attaching comprises a series of clamps located adjacent the periphery of the end of the funnel means attachable to a lip around the periphery of the opening of the container.
17. Apparatus according to claim 16 further comprising a motor attached to the base portion to drive a shaft having a distal end connected to the rotatable portion of the frame in order to rotate the rotatable portion of the frame and thereby rotate the funnel means and container.
18. Apparatus according to claim 17 whereupon the funnel means and container have rotated through the predetermined angle the raising means is activated to release the container from the rotatable portion of the frame.
19. Apparatus according to claim 8 wherein the predetermined angle is about 180 degrees.
20. Apparatus according to claim 18 wherein the container is removed from the frame and transported for storage or to a processing station ready for removal of part or all of the contents of the container.
21. Apparatus according to claim 8 wherein the funnel means is substantially a truncated cone.
22. A method of rotating a load, positioned on a first load support means, comprising the steps of:
- placing the load into a frame;
 - securing the load to a second load support means;
 - rotating a portion of the frame through a predetermined angle such that the second load support means fully supports the load;
 - removing the load and second load support means from the frame ready for transport to an uncontaminated environment; and
 - wherein the first load support means is prevented from entering the uncontaminated environment.

23. A method according to claim 22 wherein the step of securing the load to the second load support means comprises the step of clamping a portion of the load to the second load support means.
24. A method according to claim 23 further comprising the step of raising the load to a position such that the second load support means contacts a clamping means housed within the frame.
25. A method according to claim 24 further comprising the step of clamping the second load support means to the clamping means.
26. A method according to claim 22 wherein the securing step comprises clamping the portion of the load to the second load support means and securing the second load support means to a clamping means housed within the frame.
27. A method according to claim 26 further comprising the step of raising the load and second load support means prior to securing the second load support means to the clamping means.
28. A method according to claim 22 further comprising the steps of clamping the second load support means to a clamping means and raising the load to a position such that the portion of the load contacts the second load support means prior to the second load support means being secured to the load.
29. A method according to claim 28 wherein the rotating step results from the attachment or engagement of a shaft to a portion of the frame and the shaft driven by a motor so as to rotate the frame and load.
30. Apparatus for rotating a load, positioned on a first load support means, comprising:
a frame for receiving the load and the first load support means;
wherein a second load support means is secured to the load;

wherein further a portion of the frame is able to rotate through a predetermined angle until the second load support means fully supports the load;

wherein subsequently the load and second load support means are removed from the frame ready for transport to an uncontaminated environment and the first load support means is prevented from entering the uncontaminated environment.

31. Apparatus according to claim 30 wherein the second load support means is attached to the frame.
32. Apparatus according to claim 31 wherein the second load support means is attached to a clamping means housed within the frame.
33. Apparatus according to claim 32 wherein the frame comprises a base portion and a rotatable portion that rotates within the base portion.
34. Apparatus according to claim 33 wherein the load is initially loaded into the rotatable portion of the frame in a position below the second load support means, said second load support means attached to the clamping means housed within the rotatable portion.
35. Apparatus according to claim 34 further comprising means for raising the load such that a portion of the load contacts the second load support means and thereafter the second load support means is attached to the load.
36. Apparatus according to claim 30 wherein the second load support means is secured to the load either prior to placing the load in the frame or when the load has been placed in the frame.
37. Apparatus according to claim 36 wherein the second load support means is attached to a clamping means housed within the frame.
38. Apparatus according to claim 37 wherein the frame comprises a base portion and a rotatable portion that rotates within the base portion.

39. Apparatus according to claim 38 wherein the load is initially loaded into the rotatable portion of the frame, said second load support means attached to the clamping means housed within the rotatable portion.

40. Apparatus according to claim 39 further comprising means for raising the load wherein the second load support means is attached to the clamping means after raising the load by the raising means to enable the second load support means to make contact with the clamping means.

41. Apparatus according to claim 40 wherein the raising means is a pair of cylinders.

42. Apparatus according to claim 41 wherein each cylinder in the pair of cylinders is a pneumatic cylinder.

43. Apparatus according to claim 42 wherein each cylinder in the pair of cylinders is attached to the rotatable portion of the frame.

44. Apparatus according to claim 43 further comprising a motor attached to the base portion to drive a shaft having a distal end connected to the rotatable portion of the frame in order to rotate the rotatable portion of the frame and thereby rotate the load.

45. Apparatus according to claim 44 whereupon the load has rotated through the predetermined angle the raising means is activated to release the load and first load support means from the rotatable portion of the frame.

46. Apparatus according to claim 45 wherein the first load support means is subsequently removed from the load and frame.

47. Apparatus according to claim 30 wherein the predetermined angle is about 180 degrees.

48. Apparatus according to claim 30 wherein the first and second load support means are pallets.